Subrotor

Stainless Steel Submersible Pump





The Real Alternative

The Mono® Subrotor pump offers the first real alternative to multi-stage centrifugal borehole pumps. Unlike the conventional borehole pump which uses centrifugal force as the energy to move the water, the Mono Subrotor uses the Progressing Cavity Rotor/Stator Principle to draw water up through it. When the stainless steel rotor fits inside the rubber stator the two components touch and form a seal bead, behind which a sealed capsule is formed, which moves from the suction side to the discharge of the pump as the rotor rotates inside the stator. The liquid within the capsule is delivered so positively that the pump is capable of very high pressure. The Mono pumping principle was invented in the 1930's, and has continued to be developed and refined to meet the increasing needs of the world's pumping industries. The progressing cavity principle is one of the most efficient and reliable methods of pumping water ever. The design principle ensures that the pumps are also extremely reliable, particularly on borehole water with a silt or iron oxide content.

Subrotor Advantage

- Cheaper to run
- High head ... Less horsepower
- Stainless steel
- Abrasion resistance
- Simple construction
- Just one moving part does all the pumping
- Easy to repair
- Rotor/stator self-cleaning and ensures no algae or oxide deposits... i.e. No clogged pump impellers
- More pump for your money!

A User-Friendly Forgiving Pump

Check Valve
Designed specifically to prevent leakage and loss of pipeline water, with minimum restriction to the pump outlet. Includes an anti-rotation pin to eliminate spindle wear.

Rotor / Stator
The Mono Pump rotor and stator optimises abrasion resistance through in-house manufacturing and stringent quality control procedures. The rotor form and low interference results in excellent hydraulic performance and reduced breakout torque.

Flexishaft
Stainless steel (standard) and Halar coated flexishaft options available to suit highly abrasive conditions.

Stabilisers
A unique Mono development to centralise the pump element while eliminating vibration.

Motor Coupling
Seals flexishaft connection whilst allowing easy removal from motor during maintenance.

Motor
Standard 2 pole 100mm (4") fully submersible motor. Available in single or three phase power.

More Flow at Higher Heads
The Mono system doesn't just spin water along. It pushes encapsulated water with positive force, so that ample volume is maintained at high heads.

More Water, Lower Energy Bills
Mono Subrotor pumps waste the least possible energy on internal friction, especially compared to multi-stage and jet pumps.

Easy Maintenance
Unlike centrifugal pumps, the Subrotor has only one moving pump part – the rotor. Its companion, the rubber stator is also very resistant to wear and can easily be replaced with just a wrench.

Self-Cleaning
The rotor sweeps the full surface of the rubber stator every turn. It is impossible for growth or iron oxide deposits etc. to develop on the surface. "No clogged pump impellers".

Chrome Plated Rotor (Optional)
Mono chrome plated, stainless rotors are up to 4 times harder than the stainless you find in centrifugal pumps.

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Specifications

Pump Size: SS101

Head (m)	0	20	40	60	75
Flow (lpm)	93	91	86	79	73

*Nominal speed 2830rpm

Pump Size: SS062

Head (m)	0	20	40	60	80	100	110
Flow (lpm)	63	62	59	56	54	51	50

*Nominal speed 2830rpm

Pump Size: SS042

Head (m)	0	20	40	60	80	100	120	150
Flow (lpm)	38	38	38	37	36	35	33	29

*Nominal speed 2830rpm

AC Variable Speed Drive Electrical Specifications

Part Number	18970443-001
Max Power (kW)	1.5
Frequency (Hz)	50
Input Voltage (V)*	230+/-10%
Max. Current (Max) (Amps)	7.0
Phases	1phase (In) - 3phase(Out)
RPM	2830

*240V plug not included

Motor Specifications

Part Number	18959882-001
Power (kW)	1.5
Voltage (V)	230+/-10%
Run Current (Max)(Amps)	7.6
Locked Rotor (Amps)	8.8
Phases	3phase
RPM	2830
Motor Casing Length	385mm
Outside Diameter	94.6mm
Weight	10.4kg
Motor Cable	1.5m length, 3phase, 2.5mm^2
Minimum Bore Diameter	100mm (4")

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